

ABSTRACT

A language system facilitates entry of an input string into a mobile device (e.g., cellular phones, PDAs, pagers, etc.) using discrete keys on a keypad, such as a 10-key keypad. The keys have associated letters of an alphabet (e.g., an English alphabet). The key input is representative of one or more phonetic characters (e.g., Chinese Pinyin). Based on this input string, the language system derives the most likely corresponding language characters (e.g., Chinese Hanzi) intended by the user. The language system uses multiple different search engines and language models to aid in deriving the most probable characters. When the language system recognizes possible language characters, the mobile device displays the possible language characters for user selection. The available choices are indexed by specifically chosen selection keys that represent letters of the alphabet that do not commonly follow the phonetic characters already entered. Thus, if the user presses a selection key used to index the language characters, the language system understands that action as a selection of the language character. Alternatively, if the user presses a non-selection key, the language system understands that action as requesting further input. In this manner, the system adopts a modeless entry methodology that eliminates conventional mode switching between input and selection operations.